

REMARKS

Applicants wish to thank Examiners Lambelet and Johnson for the helpful and courteous discussion with Applicants' Representative on January 11, 2007. The following is intended to expand upon the discussion with the Examiners.

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The present invention as set forth in **Claim 1** relates to a process for producing a three-dimensional object, comprising:

- a) providing a layer of pulverulent substrate,
- b) selectively applying at least one microwave-absorbing first susceptor to one or more regions of the substrate, wherein the one or more regions are selected in accordance with a cross section of the three-dimensional object,
- c) treating the layer at least once with microwave radiation, to melt the one or more regions containing the first susceptor to the layer of pulverulent substrate, and, optionally, to melt the one or more regions containing the first susceptor with other regions located in one or more substrate layers situated thereunder, thereabove, or combinations thereof, wherein, said other regions optionally contain a microwave-absorbing second susceptor, and wherein said first susceptor and said second susceptor are the same or different, and
- d) cooling the layer.

New Claim 27 relates to the process of claim 1, wherein in step c) one or more **regions containing the first susceptor are melted with other regions located in one or more substrate layers** situated thereunder, thereabove, or combinations thereof.

New Claim 31 relates to the process of claim 1, wherein said substrate is melted in step c).

In contrast, Liu et al, Narang et al, Knipp et al, Sherwood, Wills et al fail to disclose or suggest a process for producing a three-dimensional object as claimed in Claim 1 and particularly as claimed in Claims 27 and 31. Liu et al, Narang et al, Knipp et al, Sherwood, Wills et al fail to disclose or suggest applying at least one microwave-absorbing first susceptor to one or more regions of the substrate, wherein the one or more regions are selected in accordance with a cross section of the three-dimensional object. In addition, Liu et al, Narang et al, Knipp et al, Sherwood, Wills et al fail to disclose or suggest melting the substrate as claimed in Claims 27 and 31.

In Liu, the binder, which is always a powder, is melted by radiation. It must flow between the basic particles, which are of any desired nature and are not necessarily meltable, and it must thereby surround them as a matrix. In the present invention, the susceptor does not act as a matrix and the substrate itself is melted. This in fact is achieved indirectly by the susceptor, which is excited by the microwave radiation but itself does not contribute to the binding mechanism, whereas the substrate is not or almost not excited; the susceptor definitely does not act as a "binder", and it does not bind the particles of the substrate. For example paragraph [0018] of the published application discloses that:

“Surprisingly, it has been found that three-dimensional objects can be produced from pulverulent substrates relatively simply by means of microwave radiation, for example, even by means of microwave kitchen equipment, by applying one or more susceptors to those regions to be bonded in a layer of a pulverulent substrate. The pulverulent substrate absorbs microwave radiation only poorly or not at all, while the susceptor(s) absorbs the radiation and passes the energy absorbed in the form of heat to the substrate surrounding the susceptor(s). This results in the melting and fusing of the substrate and where appropriate, the melting and fusing of the substrate to another substrate layer situated thereunder or thereover. The susceptible regions may be fused or sintered. The susceptor may be applied using a printing head, similar to that of an ink jet printer.”

Narang et al, Knipp et al, Sherwood, Wills et al do not cure the defects of Liu et al.

Therefore, the rejection of Claims 1-3, 8, 10, 21-13, 17-19, 26 under 35 U.S.C. § 102(b) as anticipated by Liu et al, the rejection of Claims 4-7 under 35 U.S.C. § 103(a) over

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Liu et al in view of Narang et al, the rejection of Claims 9 and 15-16 under 35 U.S.C. § 103(a) over Liu et al in view of Knipp et al, the rejection of Claim 11 under 35 U.S.C. § 103(a) over Liu et al in view of Sherwood, the rejection of Claim 14 under 35 U.S.C. § 103(a) over Liu et al in view of Wills et al are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejection is respectfully requested.

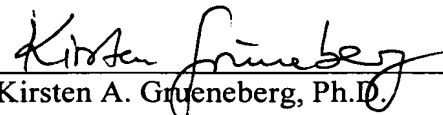
Applicants respectfully request that the Examiner acknowledge that the references cited in the **Information Disclosure Statement**, filed in the above-identified application on **November 28, 2006**, have been considered. For the Examiner's convenience a copy of Form PTO 1449 as filed on **November 28, 2006**, is attached herewith.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

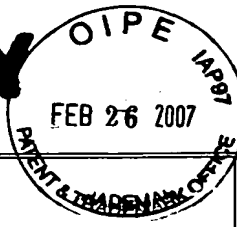
Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

Customer Number
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Kirsten A. Grueneberg, Ph.D.
Registration No.: 47,297

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| Form PTO 1449 (Modified) | | U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | | ATTY DOCKET NO. 249107US0 | | SERIAL NO. 10/799,874 | |
| LIST OF REFERENCES CITED BY APPLICANT | | | | APPLICANT Sylvia MONSHEIMER, et al. | | | |
| | | | | FILING DATE March 15, 2004 | | GROUP 1732 | |
| U.S. PATENT DOCUMENTS | | | | | | | |
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB CLASS | FILING DATE IF APPROPRIATE |
| | AA | US2006/0244169 A1 | 11/02/06 | MONSHEIMER, et al. | | | |
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| *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | | | | | | | |